Figure 1A

```
SEQ ID NO:
6    mouse_E3αII  MASEMEPEVQ AID-RSLLEC SAEEIAGRWL QATDLNREVY QHLAHCVPKI   49
4    human_E3αII  MASELEPEVQ AID-RSLLEC SAEEIAGKWL QATDLTREVY QHLAHYVPKI   49
15   mouse_E3αI   MADEEMDGAE RMDVSPEPPL APQRPASWWD QQVDFYTAFL HHLAQLVPEI   50
2    human_E3αI   MADEEAGGTE RMEISAELPQ TPQRLASWWD QQVDFYTAFL HHLAQLVPEI   50
     Consensus    MA.E..... ..D....L.. .....A..W. Q..D..... .HLA..VP.I   50

6    mouse_E3αII  YCRGPNPFPQ KEDTLAQHIL LGPMEWYICA EDPALGFPKL EQANKPSHLC   99
4    human_E3αII  YCRGPNPFPQ KEDMLAQHVL LGPMEWYLCG EDPAFGFPKL EQANKPSHLC   99
15   mouse_E3αI   YFAEMDPDLE KQEESVQMSI LTPLEWYLFG EDPDICLEKL KHSG-AFQLC   99
2    human_E3αI   YFAEMDPDLE KQEESVQMSI FTPLEWYLFG EDPDICLEKL KHSG-AFQLC   99
     Consensus    Y.....P... K.....Q... L.P.EWYL.G EDP.....KL ........LC  100

6    mouse_E3αII  GRVFKVGEPT YSCRDCAVDP TCVLCMECFL GSIHRDHRYR MTTSGGGGFC  149
4    human_E3αII  GRVFKVGEPT YSCRDCAVDP TCVLCMECFL GSIHRDHRYR MTTSGGGGFC  149
15   mouse_E3αI   GKVFKSGETT YSCRDCAIDP TCVLCMDCFQ SSVHKNHRYK MHTSTGGGFC  149
2    human_E3αI   GRVFKSGETT YSCRDCAIDP TCVLCMDCFQ DSVHKNHRYK MHTSTGGGFC  149
     Consensus    GRVFK.GE.T YSCRDCA.DP TCVLCM.CF. .S.H..HRY. M.TS.GGGFC  150

6    mouse_E3αII  DCGDTEAWKE GPYCQKHKLS SSEVVEEEDP LVHLSEDVIA RTYNIFAIMF  199
4    human_E3αII  DCGDTEAWKE GPYCQKHELN TSEIEEEEDP LVHLSEDVIA RTYNIFAITF  199
15   mouse_E3αI   DCGDTEAWKT GPFCVDHEPG RAGTTKESLH -CPLNEEVIA QARRIFPSVI  198
2    human_E3αI   DCGDTEAWKT GPFCVNHEPG RAGTIKENSR -CPLNEEVIV QARKIFPSVI  198
     Consensus    DCGDTEAWK. GP.C..HE.. ......E... ...L.E.VIA ....IF....  200
```

Figure 1B

```
6    mouse_E3αII  RYAVDILTWE KESELPEDLE VAEKSDTYYC MLFNDEVHTY EQVIYTLQKA  249
4    human_E3αII  RYAVEILTWE KESELPADLE MVEKSDTYYC MLFNDEVHTY EQVIYTLQKA  249
15   mouse_E3αI   KYIVEMTIWE EEKELPPELQ IREKNERYYC VLFNDEHHSY DHVIYSLQRA  248
2    human_E3αI   KYVVEMTIWE EEKELPPELQ IREKNERYYC VLFNDEHHSY DHVIYSLQRA  248
     Consensus    .Y.VE...WE .E.ELP..L. ..EK...YYC .LFNDE.H.Y ..VIY.LQ.A  250

6    mouse_E3αII  VNCTQKEAIG FATTVDRDGR RPVRYGDFQY CDQAKTVIVR NTSRQTK-PL  298
4    human_E3αII  VNCTQKEAIG FATTVDRDGR RSVRYGDFQY CEQAKSVIVR NTSRQTK-PL  298
15   mouse_E3αI   LDCELAEAQL HTTAIDKEGR RAVKAGVYAT CQEAKEDIKS HSENVSQHPL  298
2    human_E3αI   LDCELAEAQL HTTAIDKEGR RAVKAGAYAA CQEAKEDIKS HSENVSQHPL  298
     Consensus    ..C...EA.. ..T..D..GR R.V..G.... C..AK..I.. ........PL  300

6    mouse_E3αII  KVQVMHSSVA AHQNFGLKAL SWLGSVIGYS DGLRRILCQV GLQEGPDGEN  348
4    human_E3αII  KVQVMHSSIV AHQNFGLKLL SWLGSIIGYS DGLRRILCQV GLQEGPDGEN  348
15   mouse_E3αI   HVEVLHSVVM AHQKFALRLG SWMNKIMSYS SDFRQIFCQA CLVEEPGSEN  348
2    human_E3αI   HVEVLHSEIM AHQKFALRLG SWMNKIMSYS SDFRQIFCQA CLREEPDSEN  348
     Consensus    .V.V.HS... AHQ.F.L.L. SW...I..YS ...R.I.CQ. .L.E.PD.EN  350
```

Figure 1C

6	mouse_E3αII	SSLVDRLMLN DSKLWKGARS VYHQLFMSSL LMDLKYKKLF ALRFAKNYRQ	398
4	human_E3αII	SSLVDRLMLS DSKLWKGARS VYHQLFMSSL LMDLKYKKLF AVRFAKNYQQ	398
15	mouse_E3αI	PCLISRLMLW DAKLYKGARK ILHELIFSSF FMEMEYKKLF AMEFVKYYKQ	398
2	human_E3αI	PCLISRLMLW DAKLYKGARK ILHELIFSSF FMEMEYKKLF AMEFVKYYKQ	398
	Consensus	..L..RLML. D.KL.KGAR. ..H.L..SS. .M..YKKLF A..F.K.Y.Q	400
6	mouse_E3αII	LQRDFMEDDH ERAVSVTALS VQFFTAPTLA RMLLTEENLM TVIIKAFMDH	448
4	human_E3αII	LQRDFMEDDH ERAVSVTALS VQFFTAPTLA RMLITEENLM SIIIKTFMDH	448
15	mouse_E3αI	LQKEYISDDH ERSISITALS VQMLTVPTLA RHLIEEQNVI SVITETLLEV	448
2	human_E3αI	LQKEYISDDH DRSISITALS VQMFTVPTLA RHLIEEQNVI SVITETLLEV	448
	Consensus	LQ.....DDH ER..S.TALS VQ.FT.PTLA R.LI.E.N.. SVI..T...	450

Figure 1D

SEQ ID NO:								
6	mouse_E3αII	LKHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLISK	PTEWSDELRQ	498
4	human_E3αII	LRHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLISK	PTEWSDELRQ	498
15	mouse_E3αI	LPEYLDRNN-	KFN-FQGYSQ	DKLGRVYAVI	CDLKYILISK	PVIWTERLRA	496
2	human_E3αI	LPEYLDRNN-	KFN-FQGYSQ	DKLGRVYAVI	CDLKYILISK	PTIWTERLRM	496
	Consensus	L.....	.F.....	.K..RV...I	.DLKY.LISK	PT.W..LR.	500
6	mouse_E3αII	KFLQGFDAFL	ELLKCMQGMD	PITRQVGQHI	EMEPEWEAAF	TLQMKLTHVI	548
4	human_E3αII	KFLEGFDAFL	ELLKCMQGMD	PITRQVGQHI	EMEPEWEAAF	TLQMKLTHVI	548
15	mouse_E3αI	QFLEGFRSFL	KILTCMQGME	EIRRQVGQHI	EVDPDWEAAI	AIQMQLKNIL	546
2	human_E3αI	QFLEGFRSFL	KILTCMQGME	EIRRQVGQHI	EVDPDWEAAI	AIQMQLKNIL	546
	Consensus	.FLEGF..FL	..L.CMQGM.	.I.RQVGQHI	E..P.WEAA.	..QM.L....	550
6	mouse_E3αII	SMVQDWCALD	EKVLIEAYKK	CLAVLTQCHG	GFTDGEQPIT	LSICGHSVET	598
4	human_E3αII	SMMQDWCASD	EKVLIEAYKK	CLAVLMQCHG	GYTDGEQPIT	LSICGHSVET	598
15	mouse_E3αI	LMFQEWCACD	EDLLLVAYKE	CHKAVMRCST	NFMSSTKTV-	VQLCGHSLET	595
2	human_E3αI	LMFQEWCACD	EELLLVAYKE	CHKAVMRCST	SFISSSKTV-	VQSCGHSLET	595
	Consensus	.MQ.WCA.D	E..L..AYK.	C....M.C..	.F.....	...CGHS.ET	600

Figure 1E

```
6    mouse_E3αII  IRYCVSQEKV SIHLPISRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML  648
4    human_E3αII  IYCVSQEKV SIHLPVSRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML  648
15   mouse_E3αI   KSYKVSEDLV SIHLPLSRTL AGLHVRLSRL GAISRLHEFV PFDSFQVEVL  645
2    human_E3αI   KSYRVSEDLV SIHLPLSRTL AGLHVRLSRL GAVSRLHEFV SFEDFQVEVL  645
     Consensus    ..Y.VS...V SIHLP.SR.L AGLHV.LS.. .......E.. P........L  650

6    mouse_E3αII  IEHPLRCLVL CAQVHAGMMR RNGFSLVNQI YYYHNVKCRR EMFDKDIVML  698
4    human_E3αII  IEHPLRCLVL CAQVHAGMMR RNGFSLVNQI YYYHNVKCRR EMFDKDIVML  698
15   mouse_E3αI   VEYPLRCLVL VAQVVAEMMR RNGLSLISQV FYYQDVKCRE EMYDKDIIML  698
2    human_E3αI   VEYPLRCLVL VAQVVAEMMR RNGLSLISQV FYYQDVKCRE EMYDKDIIML  695
     Consensus    .E.PLRCLVL .AQV.A.MMR RNG.SL..Q. .YY..VKCR. EM.DKDI.ML  700

6    mouse_E3αII  QTGVSMMDPN HFLMIMLSRF ELYQLFSTPD YGKRFSSEVT HKDVVQQNNT  748
4    human_E3αII  QTGVSMMDPN HFLMIMLSRF ELYQIFSTPD YGKRFSSEIT HKDVVQQNNT  748
15   mouse_E3αI   QIGASIMDPN KFLLLVLQRY EL-----TDA FNKTIST--K DQDLIKQYNT  738
2    human_E3αI   QIGASLMDPN KFLLLVLQRY EL-----AEA FNKTIST--K DQDLIKQYNT  738
     Consensus    Q.G.S.MDPN .FL...L.R. EL.....T.. ..K..S.... ..D...Q.NT  750
```

Figure 1F

6	mouse_E3αII	LIEEMLYLII	MLVGERFNPG	VGQVAATDEI	KREIIHQLSI	KPMAHSELVK	798
4	human_E3αII	LIEEMLYLII	MLVGERFSPG	VGQVNATDEI	KREIIHQLSI	KPMAHSELVK	798
15	mouse_E3αI	LIEEMLQVLI	YIVGERYVPG	VGNVTREEVI	MREITHLLCI	EPMPHSAIAR	788
2	human_E3αI	LIEEMLQVLI	YIVGERYVPG	VGNVTKEEVT	MREIIHLLCI	EPMPHSAIAK	788
	Consensus	LIEEML...I	..VGER..PG	VG.V.....I	.REIIH.L.I	.PM HS...K	800
6	mouse_E3αII	SLPEDENKET	GMESVIESVA	HFKKPGLTGR	GMYELKPECA	KEFNLYFYHF	848
4	human_E3αII	SLPEDENKET	GMESVIEAVA	HFKKPGLTGR	GMYELKPECA	KEFNLYFYHF	848
15	mouse_E3αI	NLPENENNET	GLENVINKVA	TFKKPGVSGH	GVYELKDESL	KDFNMYFYHY	838
2	human_E3αI	NLPENENNET	GLENVINKVA	TFKKPGVSGH	GVYELKDESL	KDFNMYFYHY	838
	Consensus	.LPE.EN.ET	G.E.VI..VA	.FKKPG..G.	G.YELK.E..	K.FN.YFYH.	850
6	mouse_E3αII	SRAEQSKAEE	AQRKLKRENK	EDTALPPPAL	PPFCPLFASL	VNILQCDVML	898
4	human_E3αII	SRAEQSKAEE	AQRKLKRQNR	EDTALPPPVL	PPFCPLFASL	VNILQSDVML	898
15	mouse_E3αI	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	VNLLSCDVMI	888
2	human_E3αI	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	INLLNCDIMM	888
	Consensus	S....SKAE.	.Q.K...Q..	.D.ALPPP..	P.FCP.F...	VN.L.CDVM	900

Figure 1G

SEQ ID NO:									
6	mouse_E3αII	YIMGTILQWA	VEHHGSAWSE	SMLQRVLHLI	GMALQEEKHH	LENAVEGHVQ	948
4	human_E3αII	CIMGTILQWA	VEHNGYAWSE	SMLQRVLHLI	GMALQEEKQH	LENVTEEHVV	948
15	mouse_E3αI	YILRTIFERA	VDTESNLWTE	GMLQMAFHIL	ALGLLEEKQQ	LQKAPEEEV-	937
2	human_E3αI	YILRTVFERA	IDTDSNLWTE	GMLQMAFHIL	ALGLLEEKQQ	LQKAPEEEV-	937
	Consensus	YI..TI...A	V.....W.E	.MLQ...H..	...L.EEKQ.	L..A.EE.V.	950
6	mouse_E3αII	TFTFTQKISK	PGDAPHNSPS	ILAMLETLQN	APSLEAHKDM	IRWLLKMFNA	998
4	human_E3αII	TFTFTQKISK	PGEAPKNSPS	ILAMLETLQN	APYLEVHKDM	IRWLKTFNA	998
15	mouse_E3αI	AFDFYHKASR	LGSSAMNAQN	IQMLLERLKG	IPQLEGQKDM	ITWLQMFDT	987
2	human_E3αI	TFDFYHKASR	LGSSAMNIQM	L---LEKLKG	IPQLEGQKDM	ITWLQMFDT	984
	Consensus	TF.F..K.S.	.G....N...	I...LE.L..	.P.LE..KDM	I.WL.MF..	1000
6	mouse_E3αII	IKKIRE--CS	SSSPVAEAEG	TIMEESSRDK	DKAERKRKAE	IARLRREKIM	1046
4	human_E3aI	VKKMRE--SS	PTSPVAETEG	TIMEESSRDK	DKAERKRKAE	IARLRREKIM	1046
15	mouse_E3αI	VKRLREKSCL	VVATTSGLEC	IKSEEITHDK	EKAERKRKAE	AARLHRQKIM	1037
2	human_E3αI	VKRLREKSCL	IVATTSGSES	IKNDEITHDK	EKAERKRKAE	AARLHRQKIM	1034
	Consensus	VK..RE..C.	........E.	...EE...DK	.KAERKRKAE	.ARL.R.KIM	1050

Figure 1H

```
6    mouse_E3αII   AQMSEMQRHF IDENKELFQQ TLELDTSASA TL--DSSPPV SDAALTALGP 1094
4    human_E3αII   AQMSEMQRHF IDENKELFQQ TLELDASTSA VL--DHSPVA SDMTLTALGP 1094
15   mouse_E3αI    AQMSALQKNF IETHKLMYDN TSEVTGKEDS IMEEESTSAV SEASRIALGP 1087
2    human_E3αI    AQMSALQKNF IETHKLMYDN TSEMPGKEDS IMEEESTPAV SDYSRIALGP 1084
     Consensus     AQMS..Q..F I...K..... T.E..... .....S.P.V SD....ALGP 1100

6    mouse_E3αII   AQTQVPEPRQ FVTCILCQEE QEVTVGSRAM VLAAFVQRST VLSKDRTKTI 1144
4    human_E3αII   TQTQVPEQRQ FVTCILCQEE QEVKVESRAM VLAAFVQRST VLSKNRSKFI 1144
15   mouse_E3αI    KRGPAVTEKE VLTCILCQEE QEVKLENNAM VLSACVQKST ALTQHRGKPV 1137
2    human_E3α     KRGPSVTEKE VLTCILCQEE QEVKIENNAM VLSACVQKST ALTQHRGKPI 1134
     Consensus     .......... ..TCILCQEE QEVK.E..AM VL.A.VQ.ST .L...R.K.I 1150

6    mouse_E3αII   AD-PEKYDPL FMHPDLSCGT HTGSCGHVMH AHCWQRYFDS VQAKEQRRQQ 1193
4    human_E3αII   QD-PEKYDPL FMHPDLSCGT HTSSCGHIMH AHCWQRYFDS VQAKEQRRQQ 1193
15   mouse_E3αI    DHLGETLDPL FMDPDLAHGT YTGSCGHVMH AVCWQKYFEA VQ---LSSQQ 1184
2    human_E3αI    ELSGEALDPL FMDPDLAYGT YTGSCGHVMH AVCWQKYFEA VQ---LSSQQ 1181
     Consensus     ....E..DPL FM.PDL..GT .TGSCGHVMH A.CWQ.YF..  VQ.....QQ 1200
```

Figure 1I

```
6    mouse_E3αII  RLRLHTSYDV ENGEFLCPLC ECLSNTVIPL L-LPPRSILS RRLN-FSDQP 1241
4    human_E3αII  RLRLHTSYDV ENGEFLCPLC ECLSNTVIPL L-LPPRNIFN NRLN-FSDQP 1241
15   mouse_E3αI   RIHVDL-FDL ESGEYLCPLC KSLCNTVIPI IPLQPQKINS ENAEALAQLL 1233
2    human_E3αI   RIHVDL-FDL ESGEYLCPLC KSLCNTVIPI IPLQPQKINS ENADALAQLL 1230
     Consensus    R.......D. E.GE.LCPLC ..L.NTVIP. ..L.P..I.S .......... 1250

6    mouse_E3αII  DLAQWTRAVT QQIKVVQMLR RKHNAA-DTS SSEDTEAMNI IPIPEGFRPD 1290
4    human_E3αII  NLTQWIRTIS QQIKALQFLR KEESTP-NNA STKNSENVDE LQLPEGFRPD 1290
15   mouse_E3αI   TLARWIQTVL ARISGYNIKH AKGEAPAVPV LFNQGMGDST FEFHSILSFG 1283
2    human_E3αI   TLARWIQTVL ARISGYNIRH AKGENP-IPI FFNQGMGDST LEFHSILSFG 1279
     Consensus    .LA.W.TV. ..I.......  .K...P-... .......... .......... 1300

6    mouse_E3αII  FYPRNPYSDS IKEMLTTFGT AAYKVGLKVH PNEGDPRVPI LCWGTCAYTI 1340
4    human_E3αII  FRPKIPYSES IKEMLTTFGT ATYKVGLKVH PNEEDPRVPI MCWGSCAYTI 1340
15   mouse_E3αI   VQSSVKYSNS IKEMVILFAT TIYRIGLKVP PDELDPRVPM MTWSTCAFTI 1333
2    human_E3αI   VESSIKYSNS IKEMVILFAT TIYRIGLKVP PDERDPRVPM LTWSTCAFTI 1329
     Consensus    ......YS.S IKEM..F.T ..Y..GLKV. P.E.DPRVP. ..W.TCA.TI 1350
```

Figure 1J

SEQ ID NO:							
6 mouse_E3αII	QSIERILSDE	EKPVFGPLPC	RLDDCLRSLT	RFAAAHWTVA	LLPVVQGHFC	1390
4 human_E3αII	QSIERILSDE	DKPLFGPLPC	RLDDCLRSLT	RFAAAHWTVA	SVSVVQGHFC	1390
15 mouse_E3αI	QAIENLLGDE	GKPLFGALQN	RQHSGLKALM	QFAVAQRATC	PQVLIHKHLA	1383
2 human_E3αI	QAIENLLGDE	GKPLFGALQN	RQHNGLKALM	QFAVAQRITC	PQVLIQKHLV	1379
Consensus	Q.IE..L.DE	.KPLFG.L..	R....L..L.	.FA.A.....	.....Q.H..	1400

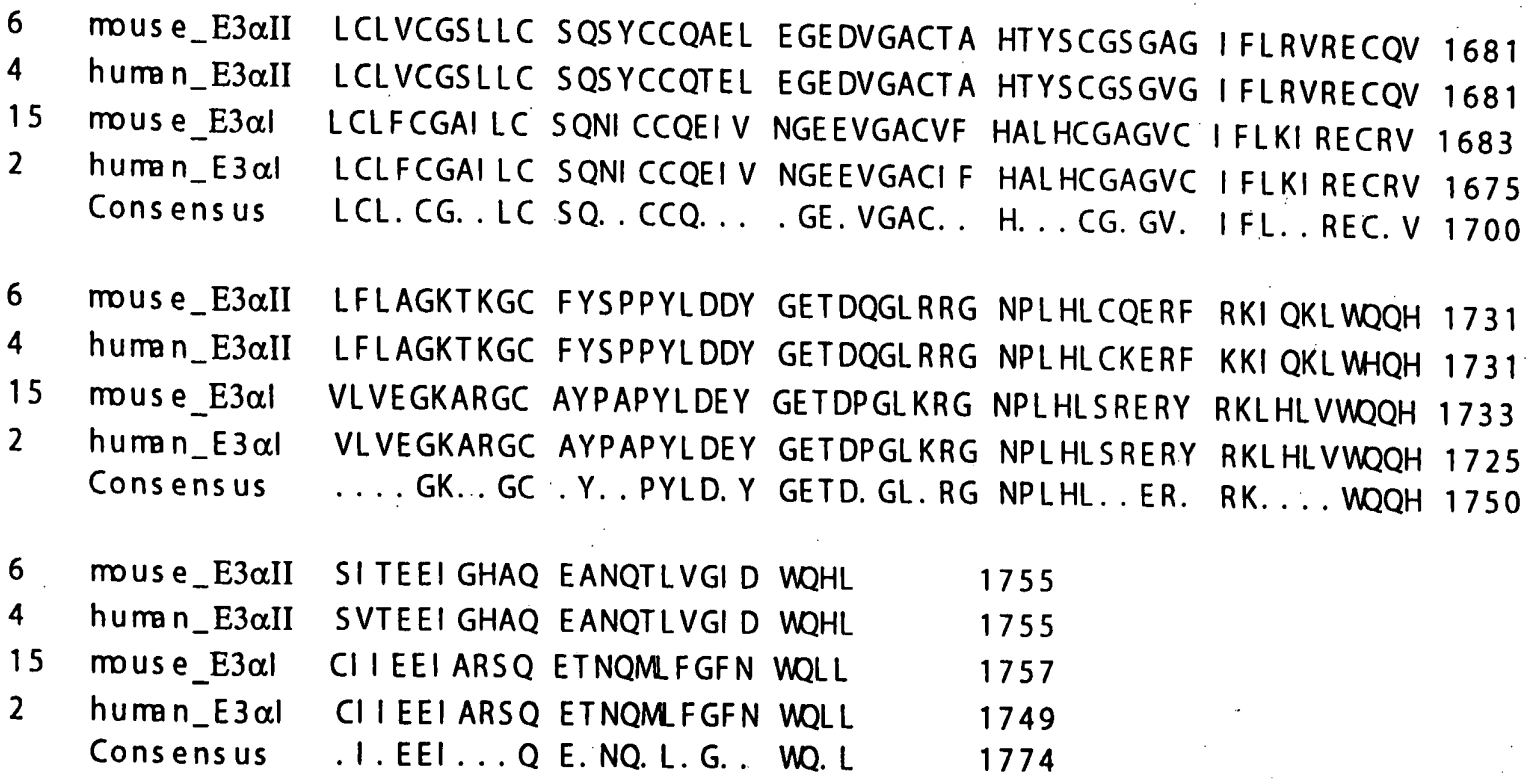
6 mouse_E3αII	KLFASLVPSD	SYEDLPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGSSL	1437
4 human_E3αII	KLFASLVPND	SHEELPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGISL	1437
15 mouse_E3αI	RLLSVILPNL	QSENTPGLLS	VDLFHVLVGA	VLAFPSLYWD	DTVDLQPSPL	1433
2 human_E3αI	RLLSVVLPNI	KSEDTPCLLS	IDLFHVLVGA	VLAFPSLYWD	DPVDLQPSSV	1429
Consensus	.L.....PN.	..E..PC.L.	ID.FH.LVG.	VLAFP.L...	D.....SSL	1450

6 mouse_E3αII	ATG--DLHIF	HLVTMAHIVQ	ILLTSCTEEN	---GMDQENP	TGEEELAILS	1482
4 human_E3αII	GTG--DLHIF	HLVTMAHIIQ	ILLTSCTEEN	---GMDQENP	PCEEESAVLA	1482
15 mouse_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTTDTDLS	PGPPLAEGEE	DSEEARCASA	1483
2 human_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTVDTGL-	---PLAQVQE	DSEEAHSASS	1475
Consensus	.....L..F	HL.TMAH..Q	ILLT..T...	---...Q...	..EE.....	1500

Figure 1K

6 mouse_E3αII	LHKTLHQYTG	SALKEAPSGW	HLWRSVRAAI	MPFLKCSAL	FHYLNGVPAP	1532
4 human_E3αII	LYKTLHQYTG	SALKEIPSGW	HLWRSVRAGI	MPFLKCSALF	FHYLNGVPSP	1532
15 mouse_E3αI	FFVEVSQHTD	GLTGCGAPGW	YLWLSLRNGI	TPYLRCAALL	FHYLLGVAPP	1533
2 human_E3αI	FFAEISQYTS	GSIGCDIPGW	YLWVSLKNGI	TPYLRCAALF	FHYLLGVTPP	1525
Consensus	.....QYT.	.....GW	.LW.S.R.GI	.P.L.C.ALF	FHYL.GV..P	1550
6 mouse_E3αII	PDLQV-SGTS	HFEHLCNYLS	LPTNLIHLFQ	ENSDIMNSLI	ESWCQNSEVK	1581
4 human_E3αII	PDIQV-PGTS	HFEHLCSYLS	LPNNLICLFQ	ENSEIMNSLI	ESWCRNSEVK	1581
15 mouse_E3αI	EELFANSAEG	EFSALCSYLS	LPTNLFLLFQ	EYWDTIRPLL	QRWCGDPALL	1583
2 human_E3αI	EELHTNSAEG	EYSALCSYLS	LPTNLFLLFQ	EYWDTVRPLL	QRWCADPALL	1575
Consensus	..L...S...	.F..LCSYLS	LPTNL..LFQ	E..D....L.	..WC.....	1600
6 mouse_E3αII	RYLNGERGAI	SYPRGANKLI	DLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
4 human_E3αII	RYLEGERDAI	RYPRESNKLI	NLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
15 mouse_E3αI	KSLKQKSAVV	RYPRKRNSLI	ELPEDYSCLL	NQASHFRCPR	SADDERKHPV	1633
2 human_E3αI	NCLKQKNTVV	RYPRKRNSLI	ELPDDYSCLL	NQASHFRCPR	SADDERKHPV	1625
Consensus	..L.....	RYPR..N.LI	.LPEDYS.L.	NQAS.F.CP.	S..D....P.	1650

Figure 1L



6	mouse_E3αII	LCLVCGSLLC SQSYCCQAEL EGEDVGACTA HTYSCGSGAG IFLRVRECQV	1681
4	human_E3αII	LCLVCGSLLC SQSYCCQTEL EGEDVGACTA HTYSCGSGVG IFLRVRECQV	1681
15	mouse_E3αI	LCLFCGAILC SQNICCQEIV NGEEVGACVF HALHCGAGVC IFLKIRECRV	1683
2	human_E3αI	LCLFCGAILC SQNICCQEIV NGEEVGACIF HALHCGAGVC IFLKIRECRV	1675
	Consensus	LCL.CG..LC SQ..CCQ... .GE.VGAC.. H...CG.GV. IFL..REC.V	1700
6	mouse_E3αII	LFLAGKTKGC FYSPPYLDDY GETDQGLRRG NPLHLCQERF RKIQKLWQQH	1731
4	human_E3αII	LFLAGKTKGC FYSPPYLDDY GETDQGLRRG NPLHLCKERF KKIQKLWHQH	1731
15	mouse_E3αI	VLVEGKARGC AYPAPYLDEY GETDPGLKRG NPLHLSRERY RKLHLVWQQH	1733
2	human_E3αI	VLVEGKARGC AYPAPYLDEY GETDPGLKRG NPLHLSRERY RKLHLVWQQH	1725
	Consensus	....GK..GC .Y..PYLD.Y GETD.GL.RG NPLHL..ER. RK....WQQH	1750
6	mouse_E3αII	SITEEIGHAQ EANQTLVGID WQHL	1755
4	human_E3αII	SVTEEIGHAQ EANQTLVGID WQHL	1755
15	mouse_E3αI	CIIEEIARSQ ETNQMLFGFN WQLL	1757
2	human_E3αI	CIIEEIARSQ ETNQMLFGFN WQLL	1749
	Consensus	.I.EEI...Q E.NQ.L.G.. WQ.L	1774

FIG. 2

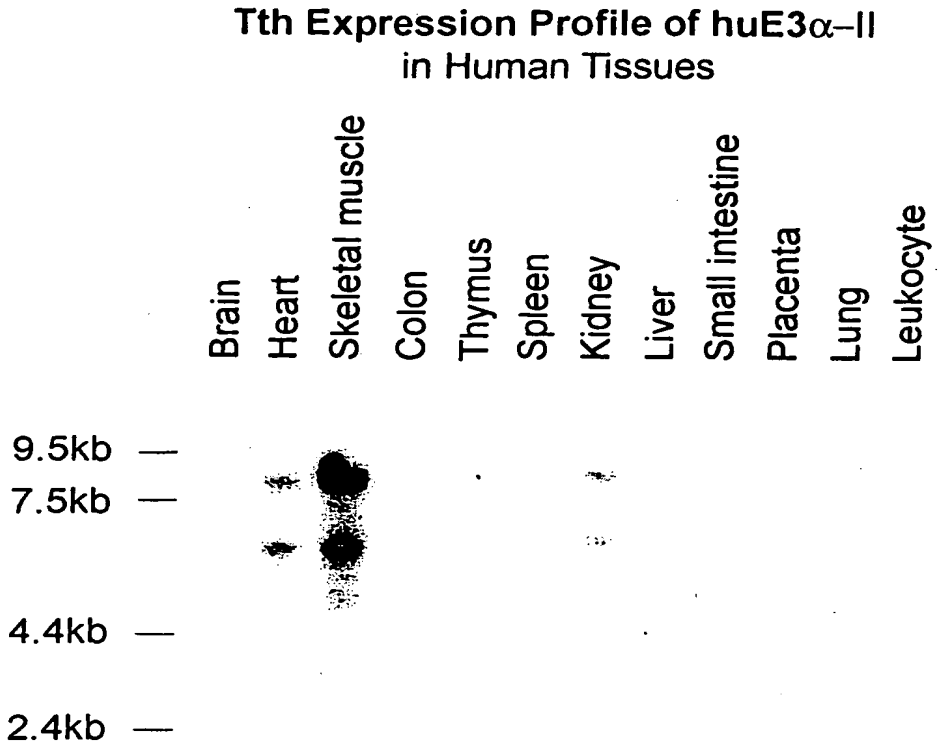
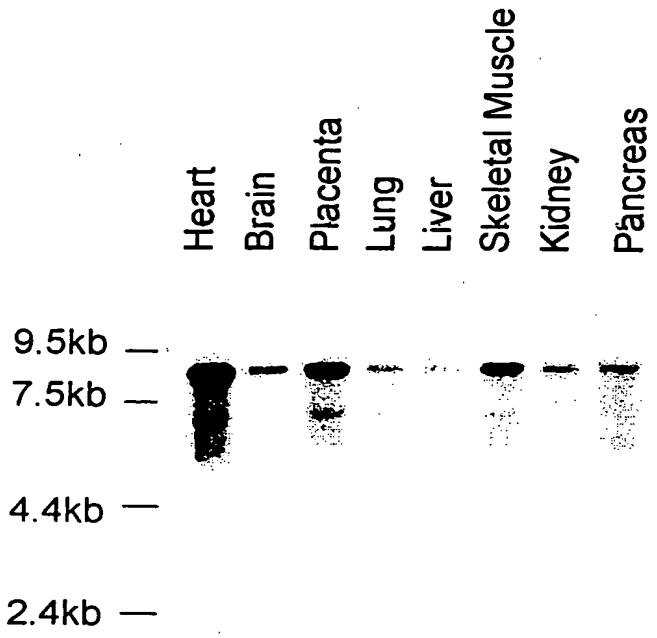
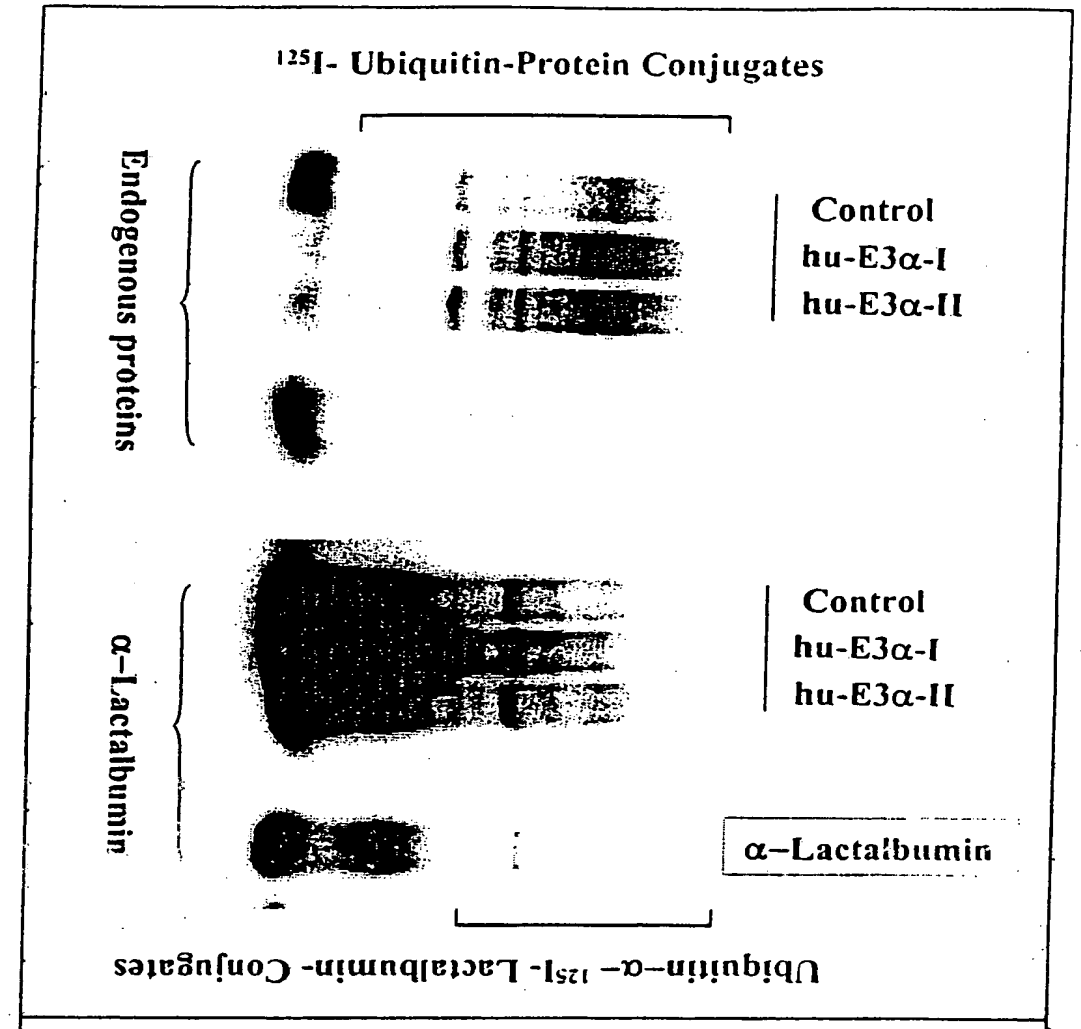


FIG. 3

Tth Expression Profile of huE3α-I in Human Tissues





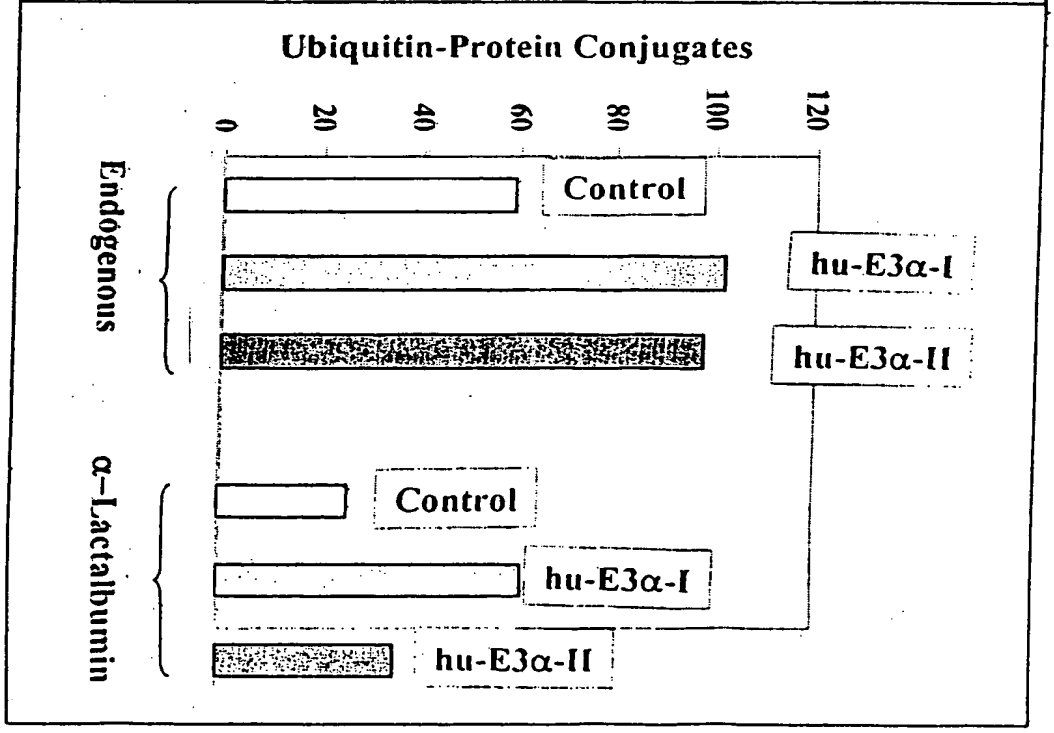


Figure 4
Ubiquitination of Endogenous Proteins

"Replacement Sheet"
The Human E3α Ubiquitin Ligase Family
Han et al. - Appl. No. 10/758,672
Atty Docket: 01017/35966B
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Figure 5

Transfection of Human E3a-I or E3a-II cDNA Stimulates Ubiquitin Conjugation in Cultured Muscle Cell Lines

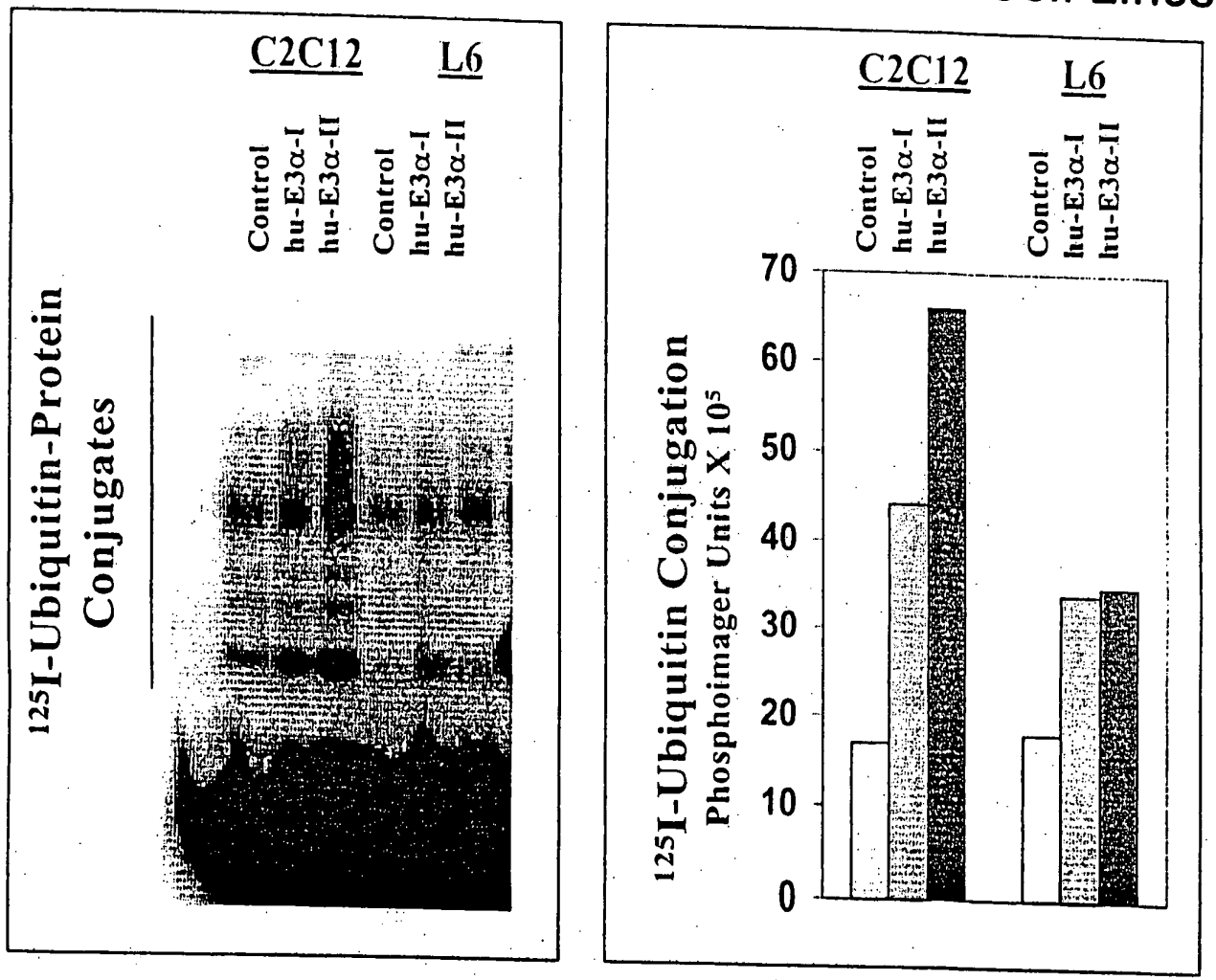

Figure 6

^{125}I-Ubiquitin Conjugation to Muscle Proteins and Its Sensitivity to E3α Inhibitor in Skeletal Muscle Extracts

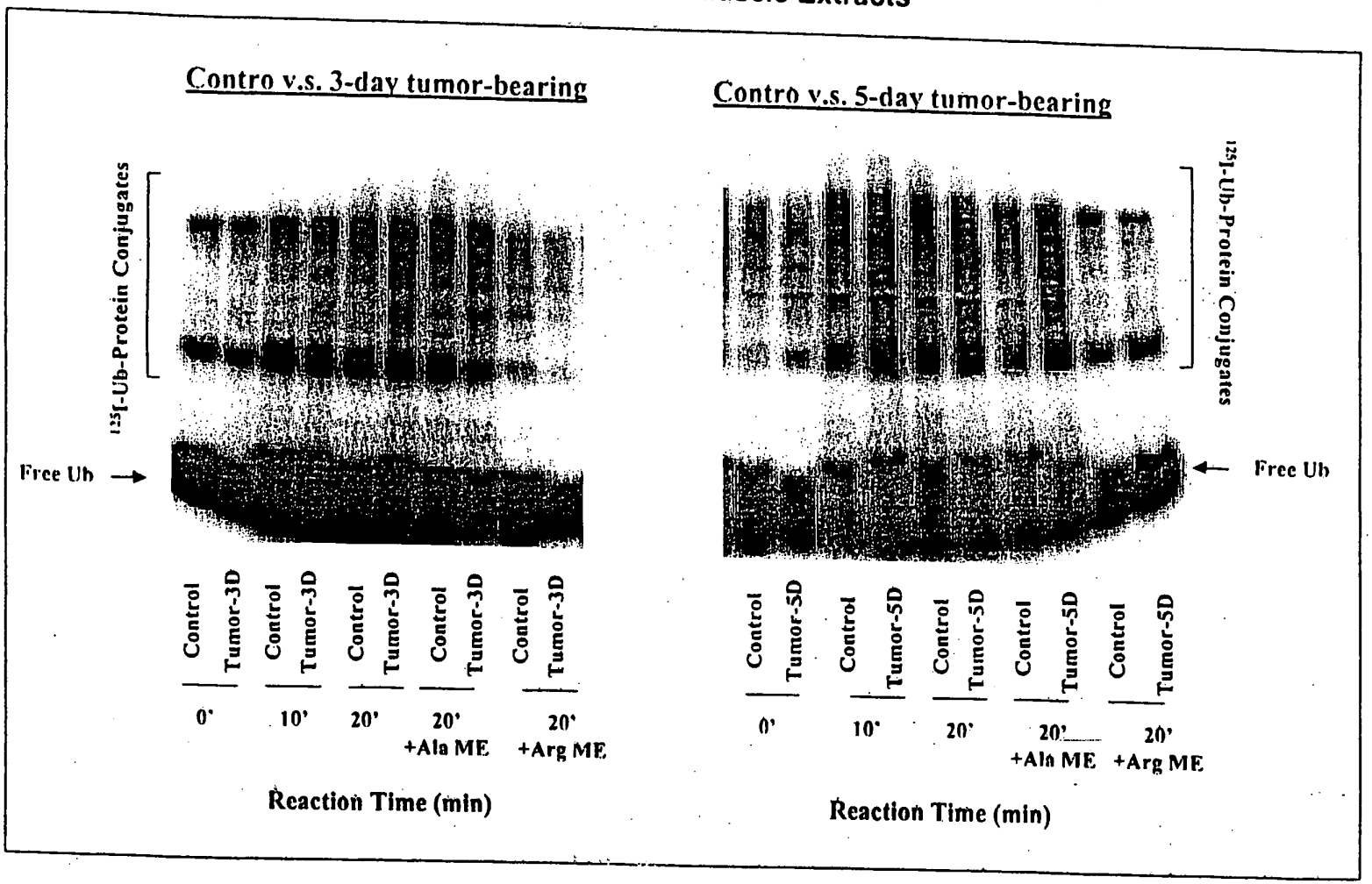

Figure 7

Rates of Ubiquitination of N-end Rule Substrate α-Lactalbumin in Skeletal Muscle Extracts

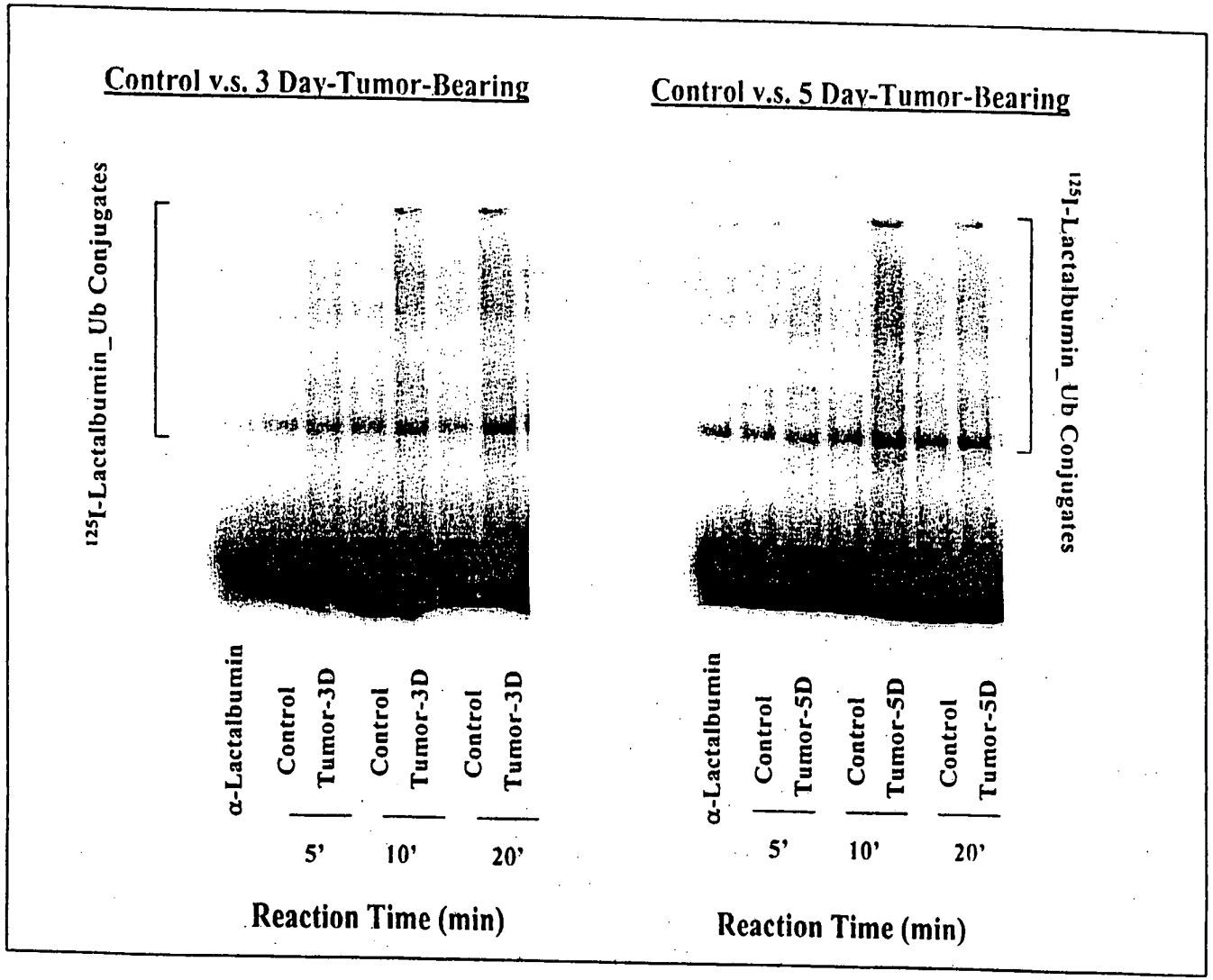

Figure 8

Northern blot analysis of E3α-I & E3α-II expression in gastrocnemius muscles in YAH-130 exprimental cachexia model

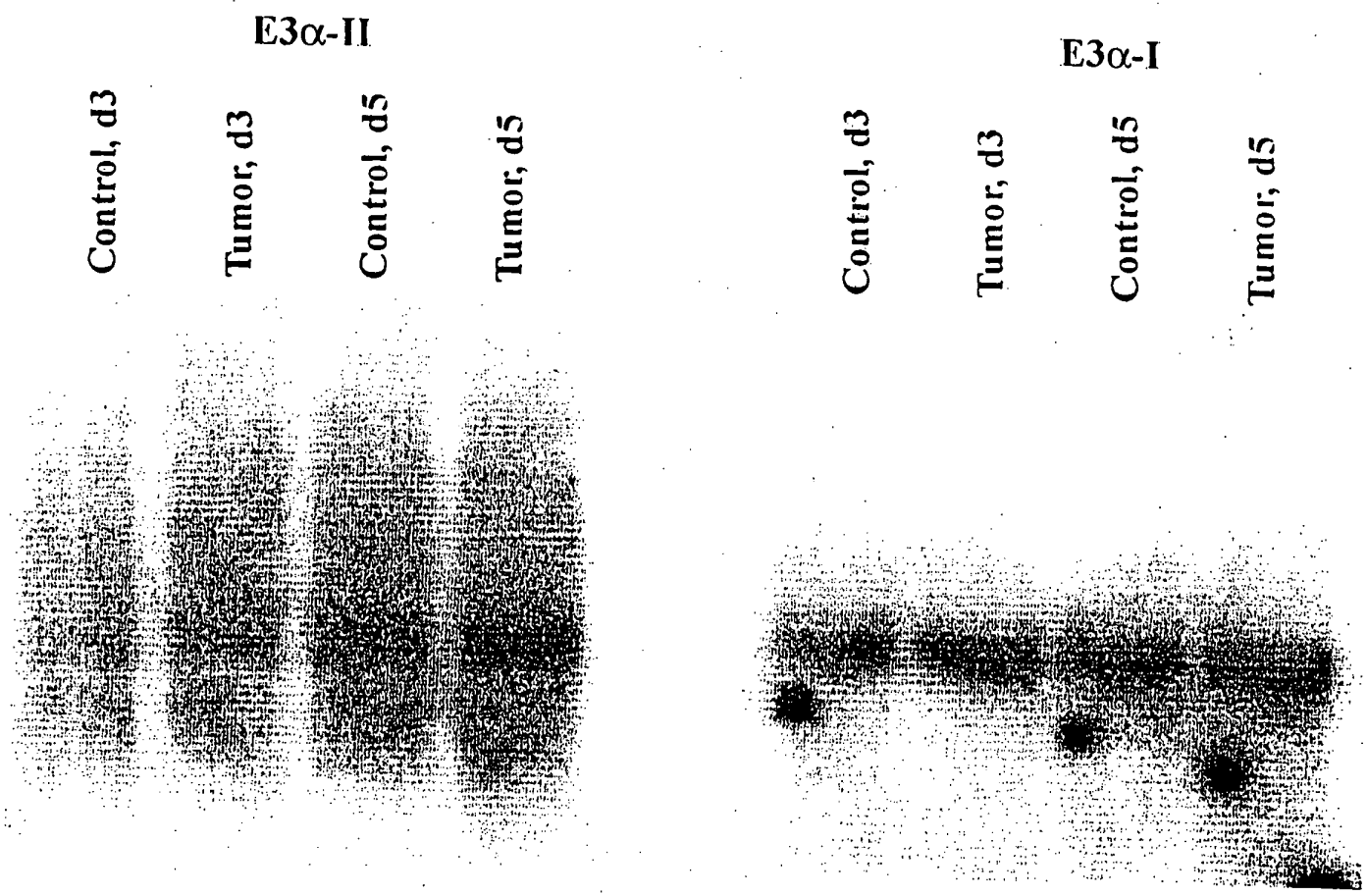

Figure 9

Northern blot analysis of E3α-I and E3α-II expression in gastrocnemius muscle and cardiac muscle in C26 experimental cachexia model

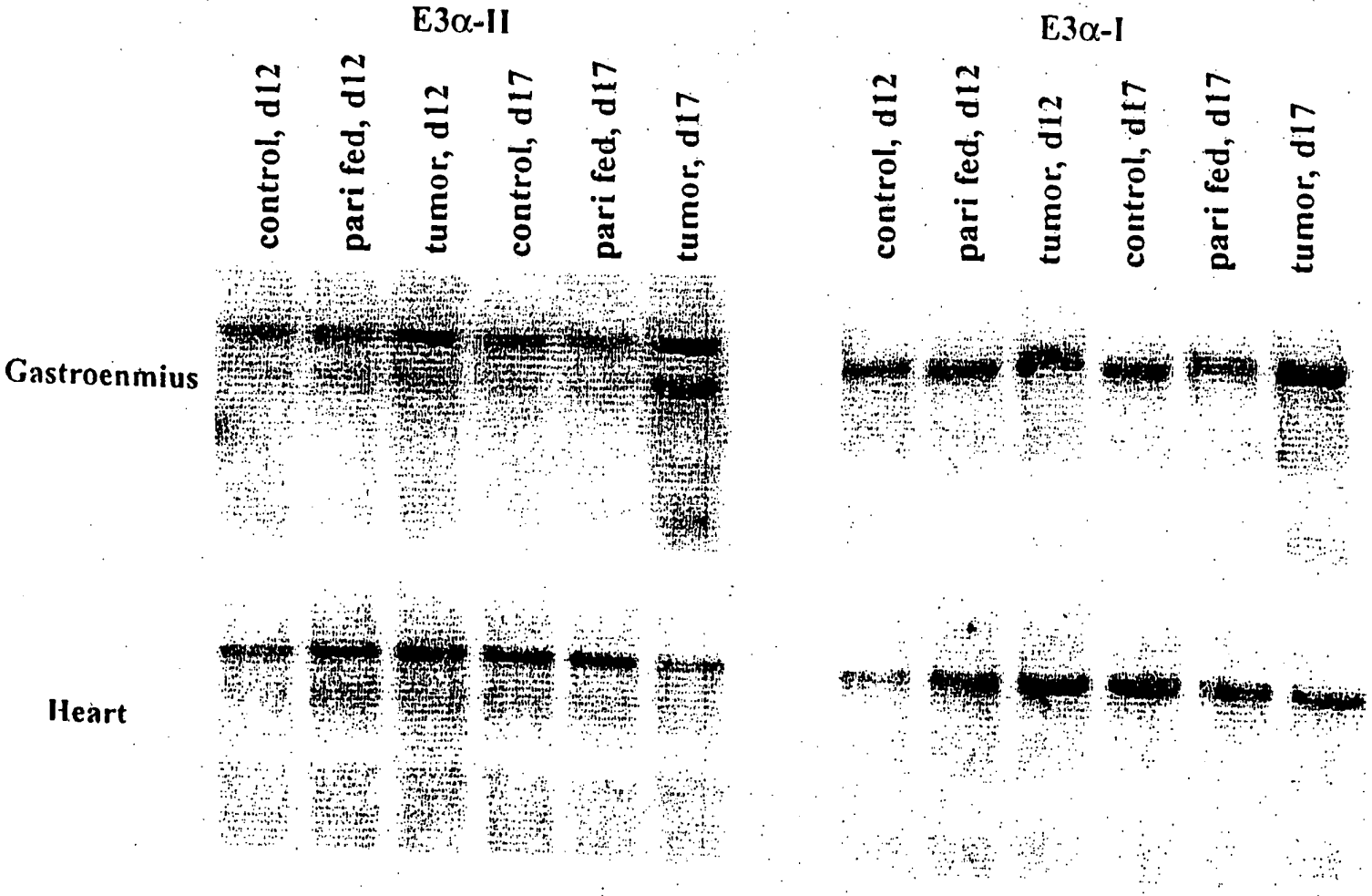

Figure 10

Proinflammatory cytokines TNF-α and IL-6 induce E3α-II Expression in C2C12 myostube culture

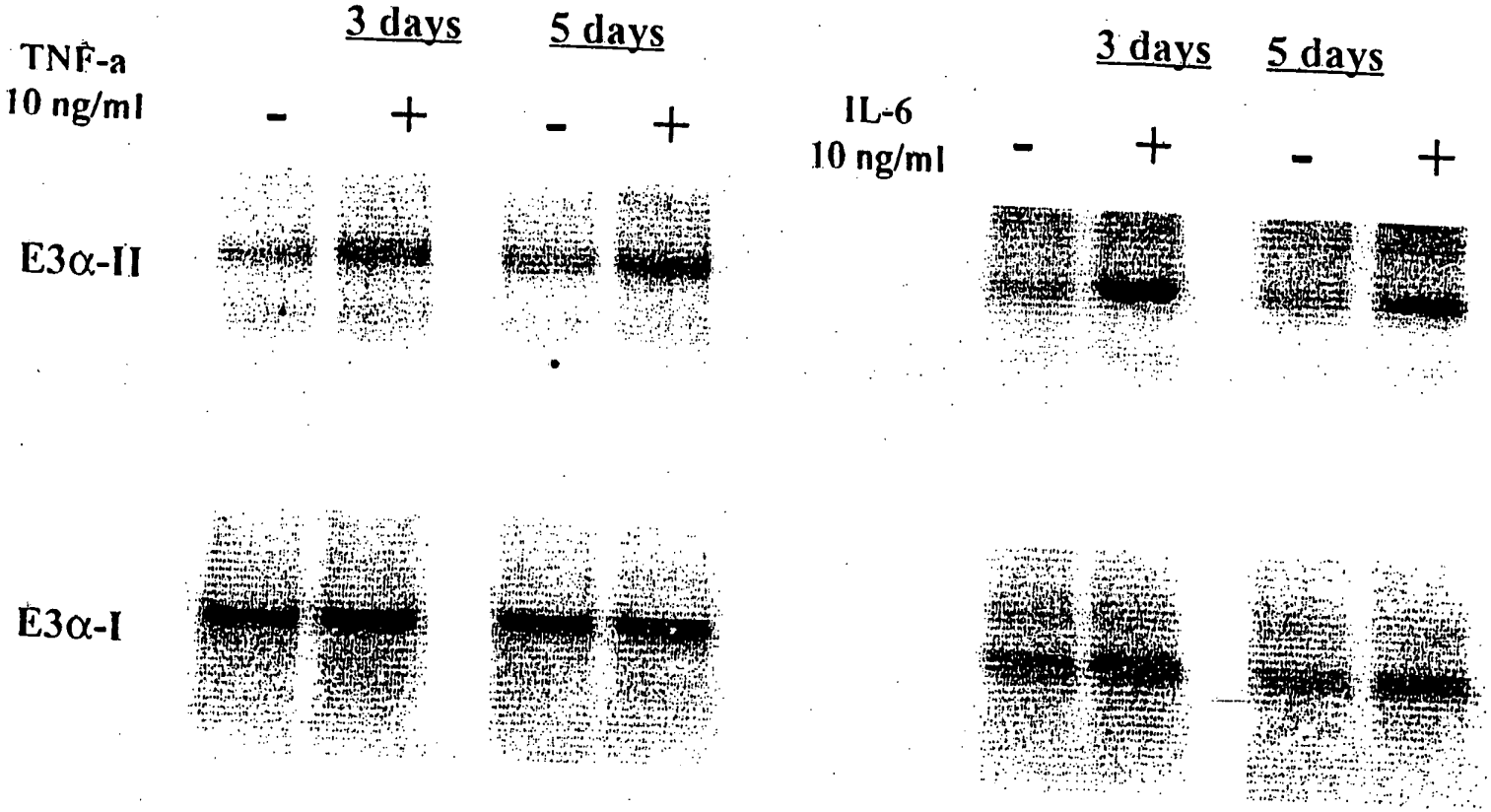

Figure 11

IL-6 Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures

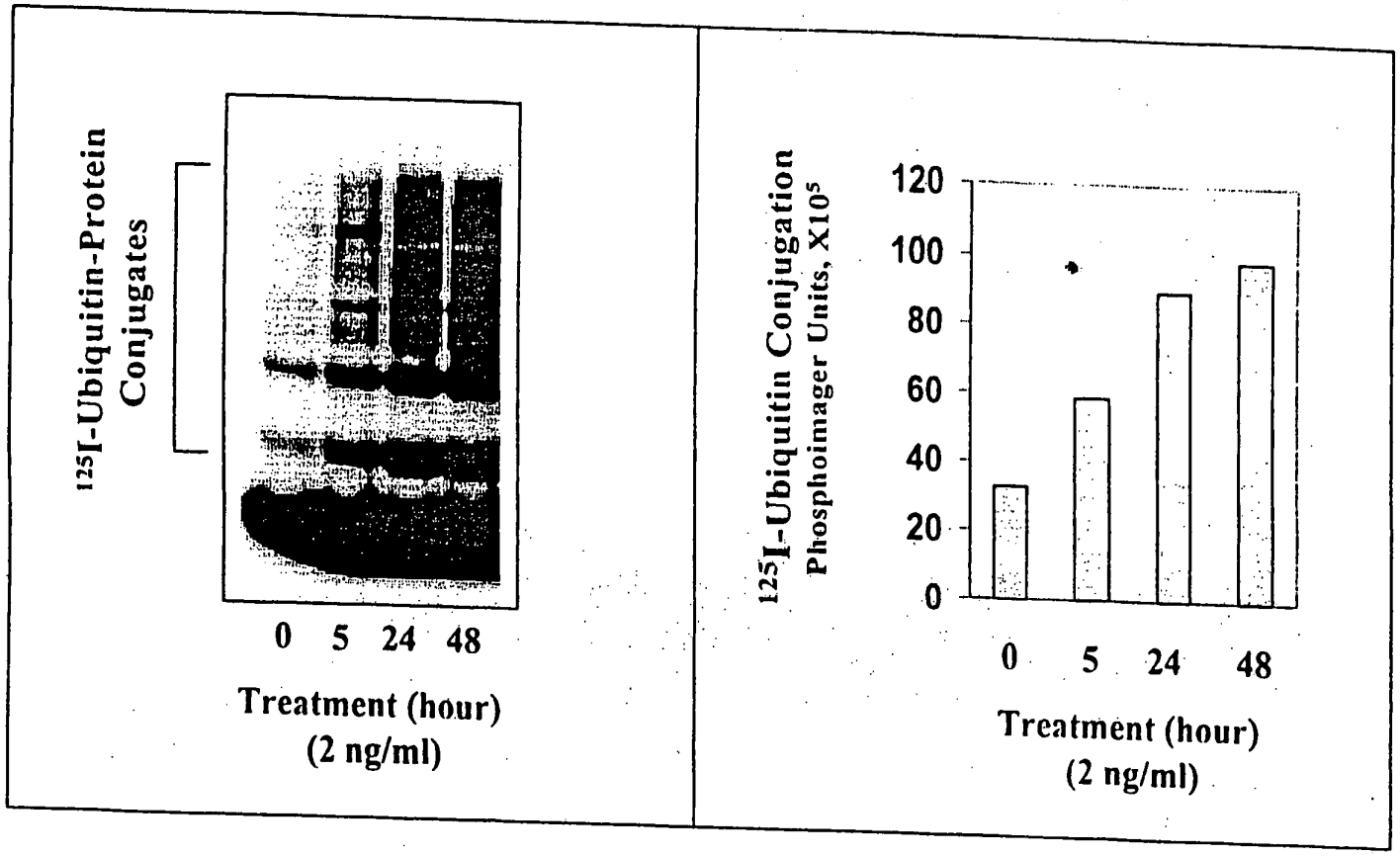

Figure 12

TNFα Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures